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ABSTRACT

Hypnosis is a state of mind which manifests a high degree of suggestibility. Advertising, political campaigning, and religious contemplation are all areas in which hypotism is employed, usually without knowledge on the part of either the "hypnotist" or the subject. Because of its association with entertainment, magic, manipulation, and danger, hypnosis and suggestion have not yet been accepted or practiced in educational institutions even thought the evidence is clear that they offer the promise of immeasurable reward for education. Nine possible uses of hypnosis and suggestion in education are a) to reinforce positive habits and relinquish negative ones, b) to expand consciousness by increasing sensory and sensual response, c) to improve concentration, d) to aid memory, e) to increase motivation, f) to diminish "mental blocks," g) to reduce anxiety, h) to encourage original thinking, and i) to develop self-confidence. These nine uses of hypnosis and suggestion in education are, for the most part, still confined to theory and the research laboratory. Educational institutions have not yet availed themselves of the benefits that can be derived from the use of these techniques. (HMD)

HYPNOSIS AND EDUCATION

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HYPNOSIS AND EDUCATION

Hypnosis and suggestion offer the promise of immeasurable reward for education. This is not an unproved thesis. The evidence is clear. Yet, hypnosis has hardly been accepted or practiced in educational institutions.

There are four main reasons for this reluctance to utilize hypnosis: its associations with *magic*, with *entertainment*, with *manipulation*, and with *danger*.

Objections to the Use of Hypnosis in Education

(1) Association with Magic

Tribal peoples from earliest times understood the powers of hypnosis. To be sure, their understanding was not at all theoretical, but entirely empirical. Tribal ceremonials were intuitive magical events that utilized trance in order to transcend the concrete, and explore the feeling dynamics of relationships and processes.

During the past two hundred years, we have become so reliant upon objective knowing, and have been so conditioned to distrust the subjective, that most traditional tribal and ancient practices have been categorically dismissed as superstition.

Hypnosis has always been associated with such magical practices, and so shunned by scientists and educators. Early Western practitioners such as Mesmer were discredited and "excommunicated" by official science and medicine. Although we now understand more about the dynamics of trance, its long association with magic still carries a taboo effect.

But today we can no longer afford to maintain prejudices against subjective ways of knowing. The very survival of the individual and of society is dependent upon our finding ways to heal the breach between the objective and the subjective, a condition sociologists call alienation.[1]

The taboos associated with our fears of and prejudices against subjective experience need to be overcome, for such experience, trance for example, can be a powerful means to help us reintegrate our fractured personalities.

(2) Association with Entertainment

The avoidance of hypnotism as a professional technique in education has left us the stage hypnotist as our predominant association with the experience of trance. Hypnotism as entertainment conjures up images of mystification and a bag of tricks which most educators find antithetical to good education.

Furthermore, the stage hypnotist selects subjects in whom he can induce a deep trance called *somnambulism*. In this state, the subject may be given the suggestion of amnesia, and foolish behavior elicited for the amusement of the audience.

But in educational hypnosis a light trance is just as effective, or more so, than a deep trance. Furthermore, in educational hypnosis, the students are at all times aware of everything that is taking place during the trance and remember everything afterward. Indeed, unless they did so, they could make little use of it for learning.

The association of hypnosis with entertainment therefore is inappropriate and unfortunate for it creates an entirely wrong idea of hypnosis as applied to education.

(3) Association with Manipulation

Largely because of its association with stage hypnotism, the experience of trance is thought to be manipulative with the subject unwittingly and involuntarily carrying out the will and whim of the hypnotist.

But stage hypnosis is only one of two distinct types of induction procedure with opposite approaches to suggestion.[2]

One is commanding and manipulative and generally referred to as the "father" type. The other is explanative and permissive and is known as the "mother" type. (Clearly, this terminology anteceded the women's liberation movement.) Shrout points out that the former, which he calls the *ergotropic*, or negative trance, engages the sympathetic nervous system and is primarily fear oriented, while the latter, which he refers to as *trophotropic*, or positive trance, engages the parasympathetic system, and induces rest and stability as its characteristic psychosomatic state.

Stage hypnotists use negative trance which is fear oriented and manipulative. Hypnotism in education should employ only positive trance. Furthermore, educational hypnosis, from the beginning, should be oriented toward the transfer of all induction and suggestion initiative from teacher to student. That is to say, educational hypnosis

should emphasize auto-suggestion. Far from inducing a dependent relationship based upon fear, the positive trance and auto-hypnosis have the potentiality of revealing mental and physical capacities which can only enhance the individual's feeling of self-power and self-respect.[3] In stage hypnosis, it is the hypnotist who is the performer and manipulator, and the subject, the manipulated. In educational hypnosis, it is the student who is the performer. No one is manipulated.

(4) Association with Danger

There are dangers in just about every process whether it is driving an automobile, crossing a street, eating, drinking, breathing, getting born, or growing up. Even thinking can be dangerous! Hypnotism is no exception. There are dangers, but not the ones usually attributed to it.

The most common fear is that of never being able to awaken from the trance, condemned forever to walk the earth in an endless sleep! In educational hypnosis, since only a light trance is employed, the process of transition from trance to waking state entails no complications or dangers whatever. If the hypnotist (or oneself in the case of auto-hypnosis) fails to give the suggestion to return to the waking state, the subject will do so spontaneously with no harmful effects.

The greatest danger of hypnosis and suggestion, I believe, is in its utilization for negative social, political, or psychological purposes. For example, Hitler's speeches and propaganda methods had a clearly hypnotic effect on the German people during the Nazi period.[4] Politically

reactionary power structures might again try to utilize hypnosis techniques in and out of the schools for their own purposes.

It is also possible that individual teachers and students with sadistic tendencies might use the techniques to make psychologically and socially negative suggestions. Further, it is possible that masochistic individuals might use auto-hypnosis to make negative suggestions to themselves. These are indeed real dangers.

But knowledge is always potentially dangerous. It has the power to enslave as well as to liberate. The best guarantee that knowledge will be utilized positively is to disseminate it as widely as possible. There is no safety in suppression of ideas and techniques. There is safety only in maximal exposure, education, and freedom of exchange. And so it is with hypnosis and suggestion.

In any event, as Mirowitz and Tremonti pointed out, hypnosis has always been an intrinsic part of education whether or not we are aware of it. What remains to be done is to utilize it consciously and scientifically.

> Isn't it time that this nebulous ghost of the danger of hypnosis be exorcised and laid? The educator may then no longer use this as an excuse for not learning the scientific techniques of this branch of educational psychology for the mutual benefit of both student and teacher.[5]

Another danger is that educators might seize on hypnosis as a panacea just as in the past we have seized on other panaceas to save us from educational crises (ability grouping, strict discipline, *laissez-faire* classrooms,

ungraded schools, and reorganization of the bureaucracy or of the curriculum, to recall a few). Would that we could all be saved from our panaceas--including hypnosis panaceas!

Still another danger may lurk in the growing fascination with *Hypnopedia*, that is, sleep learning. Research has shown that hypnopedia can be effective. The results of experiments in the Soviet Union (1962-65) showed that "learning during sleep is possible when a 'suggested set' to perceive and remember the . . . material . . . is involved."[6]

Hypnopedia seems to offer a golden opportunity to utilize our sleep time for productive intellectual work. Such an opportunity would appeal to many Americans who are always looking for ways of "saving time."

However, the fact that sleep learning can be effective is no reason to assume that it should be used extensively. Research has not yet shown what physiological sacrifices the body and mind must make when sleep is utilized for goal-oriented mental processes. A word of caution is in order.

The above associations of hypnosis with *magic*, *entertainment*, *manipulation* and *danger* have prevented the development of educational hypnosis. Our conclusion is that all these objections to the use of hypnosis in education are fallacious in either premise or reasoning.

We turn now to a working definition of hypnosis. Then we will examine nine educational uses of hypnosis and review research indicating the effectiveness of each of these uses.

What is Hypnosis?

The term hypnosis is an unfortunate one not only because it has become associated in the public's mind with stage tricks and mystification, but also because its very etymology is contrary to its character. Hypnosis is derived from the Greek word, *hypnotikos*, which means, to put to sleep. But hypnosis does not put one to sleep. It is, in fact, neither the state of sleeping nor the state of waking, but rather a third state intermediate to these which manifests a high degree of suggestibility.

Hypersuggestibility is most readily attained through a process of physical and mental relaxation induced by someone from whom the subject readily accepts suggestions. *Hypnosis*, or *trance*, is simply that relaxed state in which a person is more suggestible than he usually is in the waking state. There are degrees of relaxation and suggestibility, and therefore degrees of trance.

Many theories have been postulated about hypnosis. These theories approach the phenomenon in a variety of ways. Some are more concerned with description, others with analysis. Some theories focus on the physiological and chemical changes observable during trance, some on the neurological changes, others on the mental, behavioral or psychological changes induced. We cannot review all these theories here.[7] What is most relevant to our discussion is the agreement of investigators that the hypnotic state is not a single condition, but rather embraces a continuum of

suggestibility. This continuum ranges from the light trance in which the subject is somewhat more suggestible than under ordinary waking circumstances, to the deep trance in which maximum suggestibility pertains.

Viewed in this light, all of us utilize and are subject to hypnosis in many situations. Advertising, political campaigning, religious contemplation, and education are areas where hypnotism is employed, usually without either the "hypnotist" or the subject being aware of it. Mirowitz and Tremonti point out that

> . . . hypnosis in one form or another has long been an educational tool. Classroom teachers use hypnotic principles when they attempt to relax their students before starting on a difficult assignment. Athletic coaches who motivate their teams by delivering pep talks are utilizing another form of hypnosis. Instructors who use audio-visual aids or dramatize a situation are utilizing additional hypnotic techniques. Because hypnosis is a concomitant of the teaching process, it is likely that many educators have without knowing it, used some form of hypnosis in many of their most successful pedagogical efforts.[8]

Guze goes further in suggesting an identity between hypnosis and education. He asks, "Is hypnosis a form of learning? And is learning a form of hypnosis?"[9]

This article, then, does not presume to suggest the introduction of hypnosis to education. Hypnotic techniques have been employed throughout the history of education. Rather it is an appeal to explore the fullest uses of hypnotism, particularly self-hypnotism, and to use it consciously and scientifically for the benefit of the student, the teacher, and the educational process itself.

The Educational Uses of Hypnosis

There are nine interrelated uses of hypnosis in education that we will consider here: (1) reinforcing positive habits and relinquishing negative ones, (2) expanding consciousness by increasing sensory and sensual response, (3) improving concentration, (4) aiding memory, (5) building motivation, (6) releasing "mental blocks," (7) reducing anxiety, (8) increasing original and divergent thinking, and (9) developing self-confidence and self-power.

(1) Reinforcing Positive Habits and Relinquishing Negative Ones

One of the classical uses of hypnosis by psychologists, psychiatrists, and hypnotherapists is for the breaking and making of habits. Hypnosis is effective in treating problems of smoking, alchoholism, sex, nail biting, paranoia, kleptomania, pyromania, claustrophobia, xenophobia, acrophobia, aerophobia, hydrophobia, necrophobia.

Hypnosis can also effectively aid in the development of individually--and socially--desirable behavior. Sexual enjoyment, for example, may be greatly enhanced through hypnotic suggestions. It has also been effective in helping people to sleep better, to cope with stress, to breathe more deeply, to relate to other people more easily, to relax, or to increase enjoyment of music or any of the arts.

There is no clear demarcation between those habits and behavioral patterns that lie inside and those that lie outside the province of education. Human behavior in or out of schools

involves learning or unlearning. However, some habits are more directly involved than others with the problems of institutional learning, for example, study habits, speech pathology, or reading habits.

Many studies have shown that hypnosis can improve study habits. Estabrooks and May, for example, using hypnosis, improved study habits by heightening effort.[10]

Krippner and Fowler, working independently from each other, found that study habits and concentration improved under hypnosis.[11]

Speech and hearing pathology have been treated successfully through hypnosis.[12]

Many studies have reported success in improving reading through hypnosis.[13]

Donk and his colleagues developed "alert suggestion" techniques which "significantly increased reading speed while maintaining comprehension."[14]

"Alert suggestion" is distinguished from hypnosis in that no sleep-like induction is applied in the former. All suggestions are made to the subjects in the waking state.

Other investigators concur about the effectiveness of "alert suggestion." Barber, for example, holds that trance is not necessary at all to benefit from the effects of suggestion but that hypnotic-like techniques are as efficient.[15]

To achieve hypersuggestibility in the waking state, or what some investigators call "alert trance," the following suggestions, rather than sleep and relaxation, are made in

the induction procedure: (1) the elimination of distracting noises, (2) the reduction of peripheral vision, and (3) the narrowing of the field of awareness to only ideas and materials relevant to the task at hand.[16]

Although there is not complete agreement yet about the comparative effectiveness of "alert trance" and hypnotic trance, there is agreement that light trance is as effective as, or more so than, deep trance as aids to the learning process.[17] Such findings make hypnosis more practical and available in education than it would be utilizing only classical induction techniques.[18]

Throughout the following discussion, then, the reader should bear in mind that although some of the studies referred to did utilize medium or deep levels of trance, such levels are unnecessary to achieve beneficial results. Either light or "alert trance" is as effective, or more effective, for all nine educational applications of hypnosis and suggestion outlined here.

(2) Expanding Consciousness by Increasing Sensory and Sensual Response

Hypnotism may be used to explore and expand intuitive consciousness by increasing sensory responsiveness and sensuality. Trance can be much like a drug "trip," a psychedelic voyage in which sense perception and sensuality are heightened. It is, in fact, a marvelous and safe alternative to the current use of dangerous drugs for these purposes.

The value of such explorations for creative participation and enjoyment of the arts is readily apparent. It is possible through hypnotism to feel oneself into a piece of music, a painting, a role in a play, or into bodily movement or dance with a much greater intensity, sense-engagement, and sensuality than in the waking state.

For example, thirty students listened to music under trance[19] and described their experience in the following terms:

> "The instruments appeared to be much closer to me--I was able to discriminate between sounds and phrases. . . Greater clarity [Listening (2) and (3) compared with listening (1).]."
>
> "The music was right in front of my head."
>
> "I paid greater attention to myself and part of the time felt the music as being inside my head. . . everything was more intense. More detail was heard. Each particle of music had more of an impact."
>
> "The third piece of music played was so frightening, I felt myself drowning, going down deeper and deeper, fathom after fathom, till finally after an exhausted struggle, I succumbed."
>
> "I was much more involved in the music than when I was not under . . . My first listening I did not enjoy the pieces whereas the second listening the music was so close to me that I was eager to listen to all of it."
>
> "Could hear every note plucked on the stringed instrument. . . [Trad. song] Graceful feeling, transported me to a beautiful river where I had a paradise of natural beauty. Being embraced and made love to in a very sensual experience [Debussy]. Vision of tiny black faces in outer space with enlarged, open mouths crying out for help [Penderecki]."

". . . Mystical experience like meditation music and extremely spiritual [Trad. song]. Oh, my body was feeling wonderful and waking up and coming to a climax of physical comfort, therefore speaking out about the joyous feeling [Debussy]. Frightened me . . . My eyes began to flicker very fast with the music and I couldn't control them [Penderecki]."

"The third song I wanted to turn off. I really wanted to turn it off! The playing was more intense. It felt like a song I had experienced long ago while sleeping and I hated it [Penderecki]."

"I was floating at thousands of miles an hour with wind rustling my hair. Then I was under a waterfall in the sunlight, and then I heard the oboe again and again, and I still do. It was so lovely [Debussy]."

"I had a pleasant feeling although I was unable to let go completely because I felt some kind of guilt. It was like going up towards heaven, the warmth of the sun caressing my whole body, especially my cheeks. I felt I was to meet someone or something very interesting who would fill the emptiness of my life [Debussy]. I was going down, it was unpleasant, like going to the underworld. I imagined birds giving loud shrieks, quarreling with each other. Then I thought they could be on top of dead bodies. It made me shiver because I thought of vultures eating the corpses [Penderecki]."

"Had a much higher intensity and profound effect than the first time. Penderecki work created deep feelings of fear and pain and disorganization."

"The first song was extremely different [from listening (1)]. The music was more soothing. Very sweet, kind. The type of kindness that makes you feel like crying or gives you a lump in your throat [Trad. song]."

"Absolutely beautiful--mountains and a stream in spring [Debussy]. Warning of anger--completely sharp and piercing, hurting, intense [Penderecki]."

"The music was right in front of my head [Trad. song]. Music became 'sound'--more personal [Debussy]. Music more involving, not abstract anymore [Penderecki]."

"Like wandering in outer space [Debussy]. Fear and hatred . . . ending in chaos and pain. Very intense [Penderecki]."

"Much more enjoyable . . . much more intense [Trad. song]. The intensity of the music became greater and greater. . . It felt like I was witnessing something growing from small to large [Debussy]. I felt that I was entering a cave with thousands of bats flying around and mating . . . [Penderecki]."

"Related to a beautiful sexual experience [Debussy]. Frightening, intense, visions of horror [Penderecki]."

"I felt surrounded by the music as if I were a part of it [Debussy]."

"I felt like I was in Vietnam. I was playing the instrument. The melodies were extraordinary [Trad. song]. I felt as if I were walking through the forest with little raindrops all around. I was just there. I felt oblivious to everything except the forest, and rain, and music. Just a beautiful trip [Debussy]."

The improvement in visual perception under trance has also been observed. Kilman and Goldberg, for example, in an experiment conducted in 1962, noted the improvement in visual perception and recall during hypnosis.[20]

The escalation of sensory, sensual, and emotional response can be of considerable value not only in the arts, but in the social and physical sciences as well.

For example, it is possible through hypnosis to feel oneself into an historical character and his time. Such experience could help one begin to *feel* history as a very real part of one's own socially and psychologically evolving reality.

Some history teachers now use affective experience to deepen the meaning of history for their students. Professor Donald M. Bluestone,[21] for example, takes students to cemeteries, and has them reconstruct history from the seventeenth and eighteenth century tombstone inscriptions. He also arranges historical trips to such places as Plymouth, Massachusetts where for several days students live in the reconstructed Pilgrim colony--working, sleeping, dressing, and engaging in the daily routine of life much as their seventeenth century colonial predecessors did.

Hypnotism and suggestion can heighten the subjective consciousness of history by utilizing light trance on such trips, helping students and teachers to feel themselves into their own past.

A trip such as that to Plymouth described above may also be taken through trance instead of actually going there. A realistic sense of being present in a period and place never actually experienced could be achieved.

A more empathetic understanding of people with widely differing philosophical or political views from ours, or of a different national origin, class, race, or religion, could be acquired by "becoming" such individuals under light trance, and by relating and talking with others during such hypnotic impersonations.

Lastly, and of greatest importance and urgency, hypnosis and suggestion may be used to help overcome the corrupting influences and malignant effects of racism and other forms of prejudice.

(3) Increasing Concentration

Hypnosis increases concentration by narrowing the field of awareness to those ideas and materials relevant to the task at hand.[22]

Hammer found that hypnosis can increase concentration in test performance through post-hypnotic suggestions which improve mental alertness and efficiency, and increase speed, endurance, and the span of attention.[23]

McCord and Sherrill found that the efficiency of a mathematics professor to do calculus problems improved six-fold when post-hypnotic suggestion techniques were used.[24]

"N. Ash tested the mental capacity of his subjects by means of continuous addition and found that in hypnosis it increased by almost one fifth as compared to the normal state."[25]

Fowler showed that concentration and study habits in class may be improved through hypnosis.[26]

Many studies have indicated improved concentration, comprehension, and speed of reading under hypnosis.[27]

As already pointed out, one of the inherent characteristics of hypnosis is the narrowing and focussing of the sensory and conceptual fields, prerequisites for deep concentration. Father J. J. Higgins of Parks College, St. Louis University who calls his hypnosis technique, "deep concentration," has been using this technique for more than twenty-five years. He reports repeated success in improving the concentration of his students.[28]

(4) Aiding Memory

Hypermnesia (increased ability to recall) is inextricable from the other effects of hypnosis on learning, and no doubt is the results of, as well as being conducive to: increasing attention span and efficiency, improving concentration, comprehension, and mental alertness, reducing anxiety, improving motivation and perception, releasing "mental blocks," and developing self-confidence.

But even more directly related to hypermnesia, hypnosis has the effect of relaxing the recall-inhibiting mechanisms of the brain. Under deep hypnosis, for example, the brain appears to be able to release, with remarkable clarity and completeness, information stored and repressed from earliest childhood.

Prantl investigated the memory span under hypnosis "by checking the number of figures which could be recalled at one time. . . . He summarized his experiments to the effect that through suggestion the attention or memory span may be about doubled."[29]

Rosenthal indicated hypermnesia for meaningful poetry utilizing hypnosis.[30]

Although some studies indicate that hypnosis will not improve recall of random lists of unstructured material, almost all studies indicate that it will improve recall of meaningful material. Glasner concludes that hypnosis does enhance recall of meaningful material to a significant degree.[31]

(5) Building Motivation

Hypnosis helps to build motivation in a variety of ways. One way is by the increase in pleasure resulting from heightened sensualization.

Hypnosis may also spur motivation for learning through increased emotional response and involvement.[32]

Success itself can result in increased motivation. That is, improvement in study habits through hypnosis increases learning not only because of the improved study habits, but also through the psychological thrust such improvement creates in the direction of increased motivation and effort.[33]

McCord found that motivation and achievement were significantly improved through hypnosis in the case of a severely retarded student.[34]

Many other experiments confirm that hypnosis and post-hypnotic suggest improve performance.[35] It is not always clear whether that improved performance is the result of increased motivation, improvement in concentration, perception, or memory, release of "mental blocks," reduction of anxiety, or some combination of these. Nevertheless, these studies indicate significant performance improvement through the use of hypnosis techniques.

(6) Releasing "Mental Blocks"

Hypnosis is very effective in releasing "mental blocks," partly because of its effectiveness in relieving anxiety,

partly because it permits a greater success in learning by increasing the ability to concentrate, perceive, and recall, partly through heightened suggestibility that may directly negate the "mental blocks" and bad habits. It is not surprising that hypnosis resulted in "astounding improvements in the performance of backward students," according to Takehiko Matsukawa, Director of the Adachi Educational Research Center in Japan. Professor Matsukawa "has hypnotized over 1,000 children between the ages of 9 and 14 with the permission of the Ministry of Education."[36]

Professor Matsukawa's work corroborates the findings of McCord on the effectiveness of hypnosis in releasing "mental blocks" and in improving learning for retarded students.[37]

(7) Reducing Anxiety

Hypnosis can reduce anxiety directly through suggestion, and indirectly by facilitating success in performance.

Hypnosis has direct physiological effects which can help the body and mind cope with stress situations such as test-taking, speech-making, or public performance of any kind.

Shrout outlines eight physiological benefits from the activation of the parasympathetic nervous system through what he calls the trophotropic or positive trance (the "mother" type referred to above): (1) slowing of the heart beat, (2) increase in the flow of blood to all internal organs, (3) increase in digestive processes, (4) increase in

lacrimation, (5) storage of glycogen in the liver, (6) decrease of white blood cells relative to red, (7) alkalosis, and (8) increase in insulin.[38]

By activating such physiological changes through simple auto-hypnotic techniques, any child or adult could help himself through stress situations.

In 1962, Eisele and Higgins showed that examination panic and test anxiety could be lessened or removed through hypnosis.[39]

Stinson reported, after using hypnosis for five years with high school and adult education students, that it resulted in dramatic improvement in concentration, motivation, comprehension, performance, and lessening of anxiety.[40]

Hypnosis has been found to be effective in diminishing anxiety related to speech disorders,[41] physical performance,[42] and performance in music, dance or drama.

Other studies have corroborated the lessening of anxiety and the improvement of test performance when hypnosis was used.[43]

(8) Increasing Original and Divergent Thinking

There is evidence that hypnotism and suggestion can increase creative and divergent thinking.

Bowers, for example, observed significant differences between the hypnotic and control groups in an experiment which showed that "hypnotic conditions can increase divergent thinking . . . and the expression of originality."[44]

This effect of hypnosis is in part explained by the establishment in the trance state of a more relaxed attitude toward the creative goal. Zen philosophers have indicated how conscious, aggressive striving toward a goal can inhibit performance in skill-oriented or creative acts.[45]

The engagement of the parasympathetic nervous system and the concommitant relaxation of the sypathetic system create an optimal physiological condition for creative activity. Ancient people independently discovered their own hypnotic forms of and uses for establishing this psychosomatic balance. The Chinese developed *Pakua* and *T'ai Chi*, the Japanese, *Zen* meditation and *Aikido*, the Indians, *Yoga*. Creative artists in the West have discovered their own ways of achieving this state.[46]

In an informal experiment,[47] four creative artists (two painters, a novelist, and a poet) were hypnotized just before beginning their work day. A post-hypnotic suggestion was given "that you will be more creative, spontaneous, and energetic in your work today, and that you will feel a sense of joy, ease, and well-being throughout the day." At the end of the day, the four artists wrote the following summary of their experience:

Artist 1 (novelist). "I felt a great sense of relaxation and general physical well-being. There was no pressure to get quickly to work; on the other hand, I felt none of the reluctance and sense of having to force myself to get busy which is generally the rule with me when beginning a work day.

"When I did begin, ideas seemed to come easily. Although I did not write more (words, pages) than usual, I think that what I did write will require less revision than I ordinarily have to plan on."

Artist 2 (Painter). "Lightness of body, felt free from all things that had been hanging on me. Wanted to run, body felt loose.

"Worked on paintings of field flowers and apple tree. Worked well and with excitement.

"Body wanted to move. Walked to town smiling, saying hello to people I passed. Dangled feet in falls. Wrote letter to my friend in city, sending him love, air, sun sound of falls, and green blades of grass.

"During the day noticed relaxed smile on lips, no tension.

"Swam in pond at sunset joyously shouting, I'm reborn again!"

Postscript (following day): "Still alert, working with excitement, and work going well."

Artist 3 (painter). (During the induction) "To hypnotist's suggestion that we would work very well this day--relaxed but energetic and creative--I added (addressing what I considered my current problem): 'Simplify! Keep the work simpler!'

"But when I got to my studio--still feeling a wonderfully calm atmosphere around me--I began to question this urge to simplify. Why? I'm a damnably complex person; am I trying to 'jump out of my skin?' This is something I must consider more carefully. Not that I expect to arrive at a 'decision.' I work intuitively: I don't plan or dictate to the work. But the desire to simplify must be examined nevertheless.

"There are three main observations I have about the day's work:

"(1) The atmosphere of calm around me.

"(2) The initiating of a re-examination of a previously set goal (simplifying my work).

"(3) The absence of frustration or annoyance when my work was interrupted."

Artist 4 (poet). "Felt much more peaceful than usual all day--almost too peaceful to work. Had more than usual interest in old unpublished manuscripts--looked at them, and had ideas for reworking them. Wrote a poem. I can't judge its quality for several weeks. Did no *more* writing than usual. Felt the beauty of natural surroundings more keenly, and was in general more perceptive."

Further experiments are needed to establish the possibilities and limitations of hypnotism for increasing original and divergent thinking.

(9) Developing Self-Confidence and Self-Power

Lastly, one of the most important uses for educational hypnosis is its potential in helping to overcome the fatalism and the feelings of victimization that are so pervasive today.

It is a paradox that at the very moment when we have the greatest potential of any time in human history for self, social, and economic liberation, so many of us feel individually and socially impotent. The crisis of our time seems to take place at that giant cross-roads of social evolution where the potentialities for total humanity and total annhilation meet.

The feelings of victimization, then, are not paranoid, but are responses to only one side of the social reality: to

the threats of atomic holocaust, unemployment, an endless spiraling of the costs of living, the deceitfulness and hypocrisy of politicians and the mass media, as well as the implicit decay of values in a society that keeps escalating its energies, budgets, and productive capacity for warfare at the expense of education and the development of an ethical way of life.

The other side of the social reality is that today we

> stand at the threshold of . . . developing a world society in which abundance replaces scarcity, fraternity replaces hostility, and co-action replaces coercion.[48]

But we cannot begin to change our way of life until we believe in our own power. Perhaps the central problem for education today is to help us overcome the sense of helplessness, the lopsided view of ourselves that comes from responding mainly to the negative component of the psychosocial dialectic.

However, we cannot lose this sense of helplessness, we cannot believe in our own power unless, by taking steps to change our way of life, we are able to offer ourselves objective evidence that, indeed, we are not impotent.

There seems to be no way out of the dilemma.

But like the old riddle about the chicken and the egg, the question: "Which comes first?," cannot be answered without rejecting the implicit premise. Both the objective acts and the subjective changes can and need to take place at the same time, each giving impetus to, and reinforcing, the other.

Hypnosis is a powerful tool to help us overcome feelings of helplessness and hopelessness. Educational hypnosis and hypnotherapy can nurture an awareness of the enormous power that lies relatively unexplored and unused in each of us. The release of physical, mental, and emotional potentialities under trance can lead to a fuller psychological and social appreciation and use of oneself.

It should be pointed out once again here--now in relation to this question of impotence *vs.* self-power--that educational hypnosis and stage hypnosis are antithetical. The latter, through the use of the coercive, authoritarian type of trance, establishes a manipulative relationship between the hypnotist and the subject. In contrast, educational hypnosis requires: (1) the awareness of the subject (the student) during the process, (2) the memory of the process so that what is learned in trance may be applied in the waking state (that is, amnesia is not induced as it so often is in stage hypnosis), and (3) the active participation of the student in decision-making, and in the initiation as well as in the carrying out of the suggestions. Auto-hypnosis and auto-suggestion should be the goal of all induction techniques used in education.

Even in psychotherapy, there is an attempt now to utilize non-directive hypnotism.

> Hypnosis is usually considered a directive, clinician-oriented procedure and not readily associated with non-directive techniques. This consideration is largely an assumption based upon a limited evaluation of the various techniques and applications of

> hypnosis. The induction of hypnosis can be considered a patient-centered procedure when the approach to induction emphasizes the role of the patient as an active and productive element in the achievement of the trance state. Within this orientation, the use of indirect induction methods completes the framework of a nondirective approach to the therapy relationship.[49]

In contrast to directive or stage hypnotism which can leave the subject with a greater feeling of dependence and even victimization, non-directive hypnotism, auto-hypnosis, and auto-suggestion, can help to overcome feelings of inadequacy and open up new worlds of self-power.

Summary

There is no doubt that hypnosis can have fruitful uses in education. Experience and the literature has well established this fact.[50]

However, some studies have reported no observable difference between hypnotic and non-hypnotic learning.[51]

It may be that under self-conscious, controlled experimental conditions the "subjects expecting to be hypnotized are somewhat anxious or aroused and their performance level is therefore disrupted."[52]

On the other hand, it is well known that the experimental condition itself motivates performance and tends to yield the success expected by the experimenter.

There are two considerations which tend to negate the latter observation as a factor in the experiment: (1) In most experiments, the control group would be equally

motivated and therefore this factor become self-cancelling; and (2) If the suggestions of the experimenter lead to improvement in motivation and performance, the power of suggestion is thereby demonstrated. Whether those suggestions are explicit or implicit (in the form of unexpressed expectations) is not relevant since the main issue of hypnosis experiments is usually the question: "What is the power of suggestion?"

The above nine interrelated uses of hypnosis and suggestion in education for the most part are still confined to theory and the research laboratory. Educational institutions have not availed themselves thus far of the benefits that we know can be derived from these techniques.

At this moment, our schools are in crisis, as is our society at large. Students are rebelling and turning away from educational institutions as irrelevant to their needs. If we teachers and administrators fail to meet the educational needs of our students, we, not the students, will be functioning as the drop-outs from social reality. It is time to reconsider past ways and prejudices in the light of new conditions and knowledge. It is time to utilize the foregoing knowledge about hypnosis in educational practise. 53

We have nothing to lose but our fears: our fears of self, fears of society, fears of learning, and fears of hypnosis.

FOOTNOTES

[1]For a further discussion of the implications of the implications of this objective-subjective dichotomy, see R. A. Dale, "The Future of Music: An Investigation into the Evolution of Forms," *The Journal of Aesthetics and Art Criticism*, XXVI, 4 Summer, 1968, p. 484 and p. 487, footnote 20.

[2]See, for example, M. Weitzenhoffer, *An Objective Study in Suggestibility*. New York: John Wiley and Sons, 1953.

[3]For a fuller discussion of this question, see section (9) below, "Developing Self-Confidence and Self-Power," p. 23.

[4]See G. H. Estabrook, *Hypnotism*. New York: Dutton, 1943.

[5]J. M. Mirowitz and J. B. Tremonti, article quoted from the *British Journal of Medical Hypnotism*, Autumn, 1965 by R. N. Shrout, Director, World Research Center for Hypnosis Studies, Miami, 33132, in "Hypnosis and Education," part of an unpublished manuscript, p. 124.

[6]J. Hoskovec, "Hypnopedia in the Soviet Union: A Critical Review of Recent Major Experiments," *International Journal of Clinical and Experimental Hypnosis*, 1966, Vol. XIV, No. 4, 308-315.

[7]For a good summary, see A. M. Weitzenhoffer, *op. cit.*,

[8]J. M. Mirowitz and J. B. Tremonti, quoted in Shrout, *op. cit.*, p. 124.

[9]H. Guze, "Basic Psychological Principles and Hypnosis: An Interpretation and Analysis," in M. V. Kline, ed., *Hypnodynamic Psychology*. New York: The Julian Press, 1955, Chapter 3, p. 215.

[10]G. H. Estabrook , and J. R. May, "Hypnosis in Integrative Motivation," *American Journal of Clinical Hypnosis*, 1965, 7, 346-352.

[11]S. Krippner, "Hypnosis and Reading Improvement Among University Students, *American Journal of Clinical Hypnosis*, 1963, 5, 187-193. W. L. Fowler, "Hypnosis and Learning," *International Journal of Clinical and Experimental Hypnosis*, 1961, 9, 223-232.

[12]For example, see C. L. Rousey, "Hypnosis in Speech Pathology and Audiology," *Journal of Speech and Hearing Disorders*, 26, 258-67, August 1961.

[13]For example, see J. Illovsky, "An Experience with Group Hypnosis in Reading Disability in Primary Behavior Disorders," *Journal of Genetic Psychology*, 1963, 102, 61-67; S. Krippner, "The Use of Hypnosis with Elementary and Secondary School Children in a Summer Reading Clinic," *American Journal of Clinical Hypnosis*, 1966, 5, 261-266.

[14]L.J. Donk, J. Vingol, A. Hall, and R. Doty, "The Comparison of Three Suggestion Techniques for Increasing Reading Efficiency Utilizing a Counterbalanced Research Paradigm," *The International Journal of Clinical and Experimental Hypnosis*, 1970, Vol. XVIII, No. 2, 126-133. Also see L. J. Donk, R. G. Knudson, R. W. Washburn, A. D. Goldstein, and F. J. Mingor, "Toward an Increase in Reading Efficiency Utilizing Specific Suggestions: A Preliminary Approach," *International Journal of Clinical and Experimental Hypnosis*, 1968, 16, 101-110; and R. G. Knudson, "A Program Improving Reading Efficiency Through the Use of Suggestion," Unpublished doctoral dissertation, Colorado State University, 1967.

[15]See T. X. Barber, "The Concept of Hypnosis," *Journal of Psychology*, 1958, 45, 115-131, and "The Effects of 'Hypnosis' on Learning and Recall: A Methodological Critique," *Journal of Clinical Psychology*, 1965, 21, 19-25. Also T. X. Barber and P. D. Parker, "Hypnosis, Task-motivating Instructions, and Learning Performance," *Journal of Abnormal Social Psychology*, 1964, 69, 499-504.

[16]See E. R. Oetting, "Hypnosis and Concentration in Study," *American Journal of Clinical Hypnosis*, 1964, 7, 148-151.

[17]See J. Hoskovec, "A Review of Some Major Works in Soviet Hypnotherapy," *International Journal of Clinical and Experimental Hypnosis*, 1967, Vol. XV, No. 1, 1-10.

[18]It is outside the province of this article to discuss induction and suggestion techniques. There are many books which introduce these techniques to the beginning student of hypnotism, for example, A. M. Weitzenhoffer, *General Techniques of Hypnotism*. New York: Grune and Stratton, 1957.

[19]Mass hypnotism conducted by the author at the School of Music, University of Miami, February 22, 1972.

Three brief musical pieces were played: (1) A traditional Vietnam song, (2) part of Debussy's *Afternoon of a Faun*, (3) part of an orchestral piece by the

contemporary Polish composer Penderecki, dedicated to the victims of Hiroshima.

There was no discussion of the pieces. Only the titles and composers were announced.

There were three listenings: (1) before trance, (2) during trance, and (3) after trance.

During the trance, a post-hypnotic suggestion was made that the third listening would be as intense as the second.

After each of the three listenings, the participants wrote their reactions to all three selections.

[20]G. Kilman, and E. L. Goldberg, "Improved Visual Recognition During Hypnosis," *Archives of General Psychiatry*, 1962, 7, 155-162.

[21]State University of New York at Westbury.

[22]See E. R. Oetting, *op. cit.*

[23]E. F. Hammer, "Post-hypnotic Suggestions and Test Performance," *Journal of Clinical and Experimental Hypnosis*, 1954, 2, 178-185.

[24]H. McCord and C. I. Sherrill, "A Note on Increased Ability to Do Calculus Post-Hypnotically," *American Journal of Clinical Hypnosis*, 1961, 4, 124.

[25]P. Schilder, *The Nature of Hypnosis*, transl. by G. Corvin, New York: International Universities Press, 1956, p. 101.

[26]W. L. Fowler, *op. cit.* Also see S. Krippner, *op. cit.*

[27]For example, see L.J. Donk, J. Vingol, A. Hall, and R. Doty, *op. cit.*

[28]R. N. Shrout, *op. cit.*, p. 128.

[29]Schilder, *op. cit.*, p. 102.

[30]B. G. Rosenthal, "Hypnotic Recall of Material Learned under Anxiety and Non-anxiety Producing Conditions," *Journal of Experimental Psychology*, 1944, 34, 369-389.

[31]S. Glasner, "Social Psychological Aspects of Hypnosis," in *Hypnodynamic Psychology*, ed. by M. V. Kline, New York: The Julian Press, 1955, Chapter 1.

Glasner cites the following studies in support of his conclusion: P. C. Young, "An Experimental Study of Physical Functions in the Normal and Hypnotic States," *American Journal of Psychology*, 1925, 36: 214-232. P. C. Young, "An Experimental Study of Mental and Physical Functions in

the Normal and Hypnotic States: Additional Results," *American Journal of Psychology*, 1926, 37: 345-356. J. M. Stalnaker and E. E. Riddle, "The Effect of Hypnosis on Long Delayed Recall," *Journal of General Psychology*, 1932, 6: 429-440. R. W. White, G. F. Fox, and W. W. Harris, "Hypnotic Hypermnesis for Recently Learned Material," *Journal of Abnormal Social Psychology*, 1940, 35: 88-103.

[32]Stanislavsky methods of acting, for example, build motivation by increasing sensual and emotional response through self-hypnosis and suggestion, though the directors and actors usually do not consciously identify their method as hypnosis. See Valentina Litvinoff, *The Use of Stanislavsky Within Modern Dance*, New York: American Dance Guild, Inc., 1972.

[33]See G. H. Estabrooks, and J. R. May, *op. cit.*

[34]H. McCord, "Hypnosis as Aid to Teaching a Severely Retarded Teen-age Boy," *Journal of Clinical and Experimental Hypnosis*, 1956, 4, 21-24.

[35]See J. Peterson, for example, "Experiments in Rational Learning," *Psychological Review*, 1918, 25, 443-467, and "Tentative Norms in the Rational Learning Test," *Journal of Applied Psychology*, 1920, 4, 250-257; also K. J. Sakata and J. P. Anderson, "The Effects of Post-hypnotic Suggestion on Test Performance," *The International Journal of Clinical and Experimental Hypnosis*, 1970, Vol. 18, No. 1, 61-71.

[36]R. N. Shrout, *op. cit.*, p. 127.

[37]See Footnote 34.

[38]R. N. Shrout, Director of World Research Center for Hypnosis Studies, Miami, Florida 33132, Unpublished lecture, March, 1972.

Also see H. B. Crasilneck and J. A. Hall, "Physiological Changes Associated with Hypnosis, a Review of the Literature since 1948," *Journal of Clinical and Experimental Hypnosis*, 1959, 7, 9-50.

[39]G. Eisele and J. J. Higgins, "Hypnosis in Educational and Moral Problems," *American Journal of Clinical Hypnosis*, 1962, 4, 259-263.

[40]R. C. Stinson, "Hypnosis and Learning," *Pennsylvania School Journal*, May, 1964, 418-419.

[41]C. L. Rousey, *op. cit.*

[42]W. R. Johnson and G. F. Kramer, "Effects of Different types of Hypnotic Suggestions upon Physical Performance," *Res.* 2, 31, 469-73, October, 1960. (Journal of the Reticulo-endothelial Society)

Krippner, Stanley, "The Use of Hypnosis and the Improvement of Academic Achievement," The Journal of Special Education, 1970, Vol. 4 No. 4, 451-460.

[43]For example, K. J. Sakata and J. P. Anderson, *op. cit.*, and J. Peterson, *op. cit.*

[44]P. G. Bowers, "Effect of Hypnosis and Suggestion of Reduced Defensiveness on Creativity Test Performance," *Journal of Personality*, 35: June, 1967, 311-22.

[45]See E. Herrigel, *Zen in the Art of Archery*, New York: Pantheon, 1953, Random House, Vintage, 1971.

[46]See A. Koestler, *Act of Creation*, New York: Macmillan, 1964; S. Rodman, *Conversations with Artists*, New York: Putnam, 1961; E. Protter, *Painters on Painting*, New York: Grosset and Dunlap, 1970; M. A. Guitar, *Twenty-two Famous Painters and Illustrators Tell How They Work*, New York: David McKay, 1964; S. Morgenstern, ed., *Composers on Music: An Anthology of Composers Writings*, Westport, Conn.: Greenwood, 1956; P. Weiss, ed., *Letters of Composers Through Six Centuries*, Phila., Pa.: Chilton, 1967; H. Gals, ed., *Musicians' World: Great Composers in Their Letters*, New York: Arco, 1965.

[47]Group hypnosis conducted by the author at the MacDowell Colony, Peterborough, N. H. on May 23, 1972.

[48]R. A. Dale, *op. cit.*, p. 481.

[49]M. V. Kline, "Theoretical and Conceptual Aspects of Psychotherapy," in M. V. Kline, *op. cit.*, p. 99.

[50]See also W. W. Trelgar, "Review of Recent Research on Hypnotic Learning," *Psychological Reports*, 1967, 20, 723-32; and L. Uhr, "Learning under Hypnosis: What do We Know? What Should We Know?," *Journal of Clinical and Experimental Hypnosis*, 1958, 6, 121-135.

[51]See, for example, W. F. Harley, Jr., and W. F. Harley, Sr., "The Effect of Hypnosis on Paired-Associative Learning," *Journal of Personality*, 36, September, 1968, 231-40.

[52]R. Brightbill and H. Zamansky, "The Effect of Expectancy and Frequency on the Word-Recognition Threshold," *Journal of Personality*, 36, December, 1968, p. 571.

[53]Some parents are ahead of most educators in coming to this conclusion. See, for example, W. B. Zugenfuss ("housewife and mother from Fairfield, Illinois"), "Hypnosis: a Tool for Education," *Education*, April, 1962, 505-7.

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